Matter

Earth

Cells

Heredity



The nucleus of a cell contains special structures called Chromosomes. The chromosomes contain genes that carry all the information to make you you. Chromosomes are your DNA. Genes are also referred to as alleles. Look at the following picture carefully before going to the definitions that follow. You may be expected to label the parts later.

RELATIONSHIPS BETWEEN CHROMOSOMES, GENES, AND

ALLELES. 1 Chromosome Pair Gene definitions R T T t y Centromeres Y Gene Gene Gene Gene Gene Gene Gene Gene Y Y Tabl Short Y Y Tellow

Alleles for the trait flower color.

During cell division the chromosomes will separate by the centromeres and travel to opposite ends of the cell. This allows both of the new cells to have all the information they need to carry on life functions. This also allows the new cells to have the correct number of chromosomes.

Look at the picture and identify the 2 alleles. There are alleles for the "tall/short" trait, 2 alleles for the "yellow/green" trait, and 2 alleles for the "round/wrinkled" trait. This picture is for the pea plant, but what about you? You may have alleles for traits that you don't express.



Discover how genetics is used as a career in exploring chromosomes.



during cell division.





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